

## ABSTRACT

A system and method are described for managing instantiation of interface elements in a rich Internet application (RIA) that includes systematically creating a tree of descriptive nodes that describe the visual interface elements of the application. Only interface elements that are not stacked under other objects or not fully hidden on the screen are instantiated using the corresponding descriptive nodes. Detail objects corresponding to the descriptive nodes are then constructed and used by a rendering engine to render the visual interface elements of the declarative application. As the user moves to locations within the application that are stacked under other objects or are hidden, the descriptive nodes and detailed objects are created representing the interface elements of those locations for rendering by the rendering engine.